

AMENDED CLAIMS

[Received by the International Bureau on 8 July 2003 (08.07.03):
originally filed claims 1, 15, 16 and 17 have been amended; originally
filed claim 14 has been cancelled; other claims have not been amended (4
pages)]

1. (amended) A Bismuth glass composition comprising
0.5 to 14 wt% of SiO_2 , 3 to 15 wt% of B_2O_3 , 4 to 22 wt% of ZnO ,
55 to 90 wt% of Bi_2O_3 and 4 wt% or less of Al_2O_3 , and

further comprising 5 wt% or less of an oxide of
Group A, 12 wt% or less of an oxide of Group B and 0.1 to 10
wt% of an oxide of Group C, wherein

the oxide of Group A is at least one selected from
the group consisting of Li_2O , Na_2O and K_2O ,

the oxide of Group B is at least one selected from
the group consisting of MgO , CaO , SrO and BaO ,

the oxide of Group C is at least one selected from
the group consisting of Sc_2O_3 , Y_2O_3 , La_2O_3 , CeO_2 , Pr_2O_3 , Nd_2O_3 ,
 Sm_2O_3 , Eu_2O_3 , Gd_2O_3 , Tb_2O_3 , Dy_2O_3 , Ho_2O_3 , Er_2O_3 , Tm_2O_3 , Yb_2O_3 and
 Lu_2O_3 , and

the weight ratio of Al_2O_3 to SiO_2 is 0.5 or less.

2. The bismuth glass composition in accordance with
claim 1 comprising 0.5 to 12 wt% of SiO_2 , 3 to 9 wt% of B_2O_3 , 4
to 19 wt% of ZnO , 55 to 85 wt% of Bi_2O_3 and 0.1 to 4 wt% of
 Al_2O_3 .

3. The bismuth glass composition in accordance with

claim 1 comprising 1.7 to 12 wt% of SiO_2 , 3 to 9 wt% of B_2O_3 , 9.5 to 19 wt% of ZnO , 62 to 80 wt% of Bi_2O_3 and 0.1 to 4 wt% of Al_2O_3 .

4. The bismuth glass composition in accordance with claim 1 comprising 1.1 to 4.5 wt% of SiO_2 , 4 to 9 wt% of B_2O_3 , 9.5 to 18 wt% of ZnO and 72 to 85 wt% of Bi_2O_3 .

5. The bismuth glass composition in accordance with any one of claims 1 to 4 comprising 4 wt% or less of the oxide of Group A.

6. The bismuth glass composition in accordance with claim 5, wherein the oxide of Group A comprises 2 wt% or less of Li_2O , 3 wt% or less of Na_2O and 4 wt% or less of K_2O .

7. The bismuth glass composition in accordance with any one of claims 1 to 3 and 5 to 6 comprising 10 wt% or less of the oxide of Group B.

8. The bismuth glass composition in accordance with claim 7, wherein the oxide of Group B comprises 5 wt% or less of MgO , 6 wt% or less of CaO , 8 wt% or less of SrO and 10 wt% or less of BaO .

9. The bismuth glass composition in accordance with any one of claims 1 to 8 comprising 0.1 to 5 wt% of the oxide of Group C.

10. The bismuth glass composition in accordance with claim 4 or 5 comprising 0.1 to 2 wt% of Al_2O_3 .

11. The bismuth glass composition in accordance with 4, 5 or 10 comprising 8 wt% or less of the oxide of Group B.

12. The bismuth glass composition in accordance with claim 11, wherein the oxide of Group B comprises 2 wt% or less of MgO, 0.1 to 4.5 wt% of CaO, 0.1 to 4.5 wt% of SrO and 4 wt% or less of BaO.

13. The bismuth glass composition in accordance with any one of claims 1 to 3 and 5 to 9, wherein the weight ratio of ZnO to B₂O₃ is 0.8 to 2.8.

14. (canceled)

15. (amended) The bismuth glass composition in accordance with any one of claims 4 to 5 and 10 to 12, wherein the weight ratio of ZnO to B₂O₃ is 1.1 to 2.5.

16. (amended) A sealing member for a magnetic head comprising the bismuth glass composition in accordance with any one of claims 1 to 3, 5 to 9 and 13.

17. (amended) A sealing member for a plasma display panel comprising the bismuth glass composition in accordance with any one of claims 4 to 5, 10 to 12 and 15.

18. The sealing member for a plasma display panel in accordance with claim 17 further comprising a low-expansion ceramic filler in a weight ratio of 0.01 to 4 with respect to the bismuth glass composition.

19. The sealing member for a plasma display panel in accordance with claim 18, wherein the low-expansion ceramic filler is at least one selected from the group consisting of cordierite, willemite, forsterite, anorthite, zircon, mullite, β -eucryptite, β -spodumene, cristobalite, barium titanate,

titanium oxide, tin oxide, aluminum oxide, zirconium oxide and quartz glass.

20. A magnetic head comprising a pair of magnetic core halves, at least one of which being provided with a coil groove, a magnetic gap member interposed between surfaces of the magnetic core halves facing to a magnetic gap, and the sealing member in accordance with claim 16 for bonding the pair of magnetic core halves.

21. The magnetic head in accordance with claim 20 further comprising a magnetic metal film on at least one of the surfaces facing to the magnetic gap.

22. The magnetic head in accordance with claim 20, wherein each of the paired magnetic core halves comprises a pair of nonmagnetic substrates and a magnetic metal film sandwiched between the nonmagnetic substrates.

23. A magnetic recording/reproducing device comprising the magnetic head in accordance with any one of claims 20 to 22 to perform recording and reproducing information to and from a magnetic information recording medium.

24. A plasma display panel comprising a front plate and a rear plate facing to each other, display electrodes and address electrodes arranged between the front plate and the rear plate, barrier ribs for isolating the address electrodes, dielectric layers covering the surfaces of the display electrodes and the address electrodes, respectively, and the

sealing member in accordance with any one of claims 17 to 19 for bonding the peripheries of the front plate and the rear plate.

25. The plasma display panel in accordance with claim 24 provided with an air hole formed in the front plate or the rear plate, further comprising a glass tube communicating with the air hole, wherein an opening end of the air hole and an end of the glass tube are bonded with the sealing member.